=> s fiv
L1 79 FIV

=> s l1 and vaccin?
5299 VACCIN?
L2 9 L1 AND VACCIN?

=> d bib ab 1-9

335 296
10/95

US PAT NO: 5,420,026 [IMAGE AVAILABLE] L2: 1 of 9
DATE ISSUED: May 30, 1995
TITLE: Self-assembling replication defective hybrid virus particles
INVENTOR: Lendon Payne, Arlington, MA
ASSIGNEE: Therion Biologics Corporation, Cambridge, MA (U.S. corp.)
APPL-NO: 08/017,124
DATE FILED: Feb. 12, 1993
ART-UNIT: 184
PRIM-EXMR: Jacqueline Stone
ASST-EXMR: Johnny F. Railey, II
LEGAL-REP: Sewall P. Bronstein, Ronald I. Eisenstein, David S. Resnick

US PAT NO: 5,420,026 [IMAGE AVAILABLE] L2: 1 of 9

ABSTRACT:
The invention pertains to self-assembled replication defective hybrid virus-like particles having capsid and membrane glycoproteins from at least two different virus types and method of making same. Recombinant viral vectors as well as the viral particles can be used as immunogens and drug delivery vehicles.

US PAT NO: 5,413,927 [IMAGE AVAILABLE] L2: 2 of 9
DATE ISSUED: May 9, 1995
TITLE: Feline immunodeficiency virus isolate NCSU.sub.1Lb
INVENTOR: Wayne A. F. Tompkins, Apex, NC
Mary B. Tompkins, Apex, NC
ASSIGNEE: North Carolina State University, Raleigh, NC (U.S. corp.)
APPL-NO: 08/105,710
DATE FILED: Aug. 12, 1993
ART-UNIT: 184
PRIM-EXMR: Jacqueline Stone
ASST-EXMR: Johnny F. Railey, II
LEGAL-REP: Bell, Seltzer, Park & Gibson

US PAT NO: 5,413,927 [IMAGE AVAILABLE] L2: 2 of 9

ABSTRACT:
Disclosed is an isolated and purified feline immunodeficiency virus (**FIV**) culture having the identifying characteristics of **FIV** isolate NCSU.sub.1. A biologically pure culture of host cells containing a **FIV** having the identifying characteristics of **FIV** isolate NCSU.sub.1 is also disclosed, along with isolated and purified DNA coding for (a) an **FIV** having the identifying characteristics of **FIV** isolate NCSU.sub.1, or (b) an antigenic fragment of an **FIV** having the identifying characteristics of **FIV** isolate NCSU.sub.1. Various **vaccine** formulations containing active agents derived from the foregoing **FIV** virus, DNA encoding the virus, and DNA encoding antigenic fragments of the virus are also disclosed herein.
Also disclosed are immunodeficient mice containing feline tissue, which feline tissue is capable of infection with a feline immunodeficiency virus such as (but not limited to) **FIV** isolate NCSU.sub.1.

US PAT NO: 5,413,914 [IMAGE AVAILABLE] L2: 3 of 9
DATE ISSUED: May 9, 1995
TITLE: Yeast assay to identify inhibitors of dibasic amino acid processing endoproteases
INVENTOR: Alex Franzusoff, Boulder, CO
ASSIGNEE: The Regents of the University of Colorado, Boulder, CO (U.S. corp.)
APPL-NO: 08/088,322
DATE FILED: Jul. 7, 1993
ART-UNIT: 185
PRIM-EXMR: Michael G. Wityshyn

ASST-EXMR: Ralph Gitomer
LEGAL-REP: Sheridan Ross & McIntosh

US PAT NO: 5,413,914 [IMAGE AVAILABLE] L2: 3 of 9

ABSTRACT:
The present invention relates to a novel method to identify compounds that inhibit proteolytic cleavage by dibasic amino acid processing endoproteases that includes contacting a yeast strain with a putative inhibitory compound under conditions in which, in the absence of the compound, the yeast strain can cleave a precursor protein having a dibasic amino acid processing site and determining if the putative inhibitory compound inhibits cleavage of the precursor protein. The present invention includes a method to identify compounds capable of inhibiting infectious agents, such as viruses, that depend upon dibasic amino acid processing endoprotease cleavage for propagation. The present invention also includes assay kits based on such a method.

US PAT NO: 5,380,830 [IMAGE AVAILABLE] L2: 4 of 9
DATE ISSUED: Jan. 10, 1995
TITLE: Molecular clones of bovine immunodeficiency-like virus
INVENTOR: Matthew A. Gonda, Walkersville, MD
ASSIGNEE: The United States of America as represented by the Secretary of the Department of Health and Human Services , Washington, DC (U.S. govt.)
APPL-NO: 07/980,324
DATE FILED: Nov. 24, 1992
ART-UNIT: 184
PRIM-EXMR: Jacqueline Stone
ASST-EXMR: Johnny F. Railey, II
LEGAL-REP: Susan S. Rucker

US PAT NO: 5,380,830 [IMAGE AVAILABLE] L2: 4 of 9

ABSTRACT:
Biologically active proviral molecular clones of bovine immunodeficiency-like virus and cell lines infected with the same have been prepared. Various utilities of the clones are described.

US PAT NO: 5,352,665 [IMAGE AVAILABLE] L2: 5 of 9
DATE ISSUED: Oct. 4, 1994
TITLE: Method of treating disease caused by the infection of virus
INVENTOR: Akira Awaya, Yokohama, Japan
Hisashi Kobayashi, Mobara, Japan
Yusaku Ishizuka, Yokohama, Japan
Hayao Abe, Mobara, Japan
ASSIGNEE: Mitsui Toatsu Chemicals, Incorporated, Tokyo, Japan (foreign corp.)
APPL-NO: 08/091,745
DATE FILED: Jul. 15, 1993
ART-UNIT: 181
PRIM-EXMR: Lester L. Lee
LEGAL-REP: Nixon & Vanderhye

US PAT NO: 5,352,665 [IMAGE AVAILABLE] L2: 5 of 9

ABSTRACT:
A medicament for prevention and remedy of diseases caused by the infection of viruses is disclosed, which is characterized by containing as an effective ingredient thereof a nonapeptide having the following amino acid configuration:
pGlu-Ala-Lys-Ser-Gln-Gly-Gly-Ser-Asn or an ester and an amide at the carboxyl group of the C-terminal of the asparagine or a pharmacologically acceptable salt thereof.

US PAT NO: 5,324,664 [IMAGE AVAILABLE] L2: 6 of 9
DATE ISSUED: Jun. 28, 1994
TITLE: Herpes virus thymidien kinase-encoding DNA
INVENTOR: Jack H. Nunberg, San Carlos, CA
Leonard E. Post, Ann Arbor, MI
Teresa Compton, Madison, WI
Erik A. Petrovskis, Ann Arbor, MI
ASSIGNEE: The Upjohn Company, Kalamazoo, MI (U.S. corp.)

APPL-NO: 08/007,392
DATE FILED: Jan. 21, 1993
ART-UNIT: 185
PRIM-EXMR: Richard A. Schwartz
ASST-EXMR: David Guzo
LEGAL-REP: James D. Darnely, Jr., Gregory W. Steele, Sidney B. Williams, Jr.

US PAT NO: 5,324,664 [IMAGE AVAILABLE] L2: 6 of 9

ABSTRACT:
Methods for isolating thymidine kinase-encoding DNA of a herpes virus are described. These methods utilize degenerate primers based on regions of relatively conserved amino acid sequence in herpes virus thymidine kinase proteins to initiate a polymerase chain reaction which yields large amounts of the thymidine kinase-encoding DNA. The methods are illustrated in the isolation of the thymidine kinase gene of feline herpes virus, which can be used to construct recombinant thymidine kinase-negative feline herpes viruses for purposes of constructing live **vaccines** and expression vectors. In addition, the regulatory elements of the feline herpes virus thymidine kinase gene are useful in the construction of recombinant DNA vectors.

US PAT NO: 5,324,643 [IMAGE AVAILABLE] L2: 7 of 9
DATE ISSUED: Jun. 28, 1994
TITLE: Method of conferring resistance to retroviral infection
INVENTOR: Wilson Greatbatch, Akron, NY
John C. Sanford, Geneva, NY
ASSIGNEE: Greatbatch Gen-Aid, Ltd., Clarence, NY (U.S. corp.)
APPL-NO: 07/739,718
DATE FILED: Jul. 29, 1991
ART-UNIT: 184
PRIM-EXMR: Jacqueline Stone
ASST-EXMR: Johnny F. Railey, II
LEGAL-REP: Hodgson, Russ, Andrews, Woods & Goodyear

US PAT NO: 5,324,643 [IMAGE AVAILABLE] L2: 7 of 9

ABSTRACT:
In accordance with the present invention, disclosed is a method of conferring, upon a host cell, resistance to retroviral infection by interfering with one or more of the infection processes including retroviral replication and assembly into infective viral particles. The method involves introducing a vector into a host cell, wherein the vector comprises a polynucleotide which directs transcription, within the host cell, of RNA which is a) complementary or homologous, depending on the target region, to a nucleic acid sequence within one or more regions of the genome of the retrovirus; and b) is effective in inhibiting retroviral replication and/or interfering with assembly into viral particles when the host cell is infected. Also disclosed is a method of treatment using cells upon which resistance to infection has been conferred.

US PAT NO: 5,275,813 [IMAGE AVAILABLE] L2: 8 of 9
DATE ISSUED: Jan. 4, 1994
TITLE: Methods and compositions for **vaccinating** against feline immunodeficiency virus
INVENTOR: Janet K. Yamamoto, Hercules, CA
Niels C. Pedersen, Winters, CA
ASSIGNEE: The Regents of the University of California, Oakland, CA (U.S. corp.)
APPL-NO: 07/739,014
DATE FILED: Jul. 31, 1991
ART-UNIT: 183
PRIM-EXMR: Christine M. Nucker
ASST-EXMR: D. Barnd
LEGAL-REP: Townsend and Townsend Khourie and Crew

US PAT NO: 5,275,813 [IMAGE AVAILABLE] L2: 8 of 9

ABSTRACT:
Compositions derived from a novel viral isolate designated feline immunodeficiency virus (**FIV**) include the whole virus, proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful

in a variety of techniques for the detection of and **vaccination** against **FIV**. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide probes to detect the viral genome. **Vaccines** include both wholly and partially inactivated viruses inactivated cell lines expressing **FIV** antigens, and subunit **vaccines**. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (HIV).

US PAT NO: 4,396,600 [IMAGE AVAILABLE] L2: 9 of 9
DATE ISSUED: Aug. 2, 1983
TITLE: Adult schistosome worm-derived antigenic substance and method of obtaining same
INVENTOR: Luigi Messineo, Broadview Heights, OH
Mauro Scarpin, Rio de Janeiro, Brazil
ASSIGNEE: Gus Gallucci, Akron, OH (U.S. indiv.)
Mike Gallucci, Akron, OH (U.S. indiv.)
Michael Gallucci, Jr., Broadview Heights, OH (U.S. indiv.)
Don Lower, Leesburg, VA, part interest to each (U.S. indiv.)
APPL-NO: 06/217,575
DATE FILED: Dec. 18, 1980
ART-UNIT: 125
PRIM-EXMR: Anna P. Fagelson
LEGAL-REP: Sherman & Shalloway

US PAT NO: 4,396,600 [IMAGE AVAILABLE] L2: 9 of 9

ABSTRACT:
An extract of adult Schistosome mansoni worms, obtained by incubation in 0.15 M sodium chloride-sodium phosphate buffer (pH 6.8), contains protein, carbohydrates, and nucleic acid and/or by-products of the latter component and resolves into four major fractions by gel chromatography in G-100 and G-200 Sephadex columns. Immunodiffusion tests with rabbit anti-total extract serum reveal three precipitation lines corresponding to fractions I and II, and one with III or IV. Rabbits immunized with this total extract are found to be totally or partially (at least 77%) resistant to a challenge infection. The saline extract antigenic material is an effective **vaccine** for the treatment and immunization of schistosomiasis and other schistosome infections.

```
=> s ftlv
L3          5 FTLV

=> s l3 and vaccin?
         5299 VACCIN?
L4          3 L3 AND VACCIN?

=> d bib ab 1-3
```

US PAT NO: 5,275,813 [IMAGE AVAILABLE] L4: 1 of 3
DATE ISSUED: Jan. 4, 1994
TITLE: Methods and compositions for **vaccinating** against feline immunodeficiency virus
INVENTOR: Janet K. Yamamoto, Hercules, CA
Niels C. Pedersen, Winters, CA
ASSIGNEE: The Regents of the University of California, Oakland, CA (U.S. corp.)
APPL-NO: 07/739,014
DATE FILED: Jul. 31, 1991
ART-UNIT: 183
PRIM-EXMR: Christine M. Nucker
ASST-EXMR: D. Barnd
LEGAL-REP: Townsend and Townsend Khourie and Crew

US PAT NO: 5,275,813 [IMAGE AVAILABLE] L4: 1 of 3

ABSTRACT:
Compositions derived from a novel viral isolate designated feline immunodeficiency virus (FIV) include the whole virus, proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful in a variety of techniques for the detection of and **vaccination** against FIV. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide

probes to detect the viral genome. **Vaccines** include both wholly and partially inactivated viruses inactivated cell lines expressing FIV antigens, and subunit **vaccines**. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (HIV).

US PAT NO: 5,118,602 [IMAGE AVAILABLE] L4: 2 of 3
DATE ISSUED: Jun. 2, 1992
TITLE: Feline T-lymphotropic lentivirus assay
INVENTOR: Niels C. Pedersen, Winters, CA
Janet K. Yamamoto, Davis, CA
ASSIGNEE: The Regents of the University of California, Oakland, CA (U.S. corp.)
APPL-NO: 07/614,474
DATE FILED: Nov. 16, 1990
ART-UNIT: 182
PRIM-EXMR: Esther L. Kepplinger
ASST-EXMR: Donna C. Wortman
LEGAL-REP: Townsend and Townsend

US PAT NO: 5,118,602 [IMAGE AVAILABLE] L4: 2 of 3

ABSTRACT:
Compositions derived from a novel viral isolate designated feline T-lymphotropic lentivirus (**FTLV**) include the whole virus; proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful in a variety of techniques for the detection of and **vaccination** against **FTLV**. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide probes to detect the viral genome. **Vaccines** include both wholly and partially inactivated viruses and subunit **vaccines**. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (HIV).

US PAT NO: 5,037,753 [IMAGE AVAILABLE] L4: 3 of 3
DATE ISSUED: Aug. 6, 1991
TITLE: Feline t-lymphotropic lentivirus
INVENTOR: Niels C. Pedersen, Winters, CA
Janet K. Yamamoto, Davis, CA
ASSIGNEE: The Regents of the University of California, Berkeley, CA (U.S. corp.)
APPL-NO: 07/618,030
DATE FILED: Nov. 16, 1990
ART-UNIT: 185
PRIM-EXMR: Richard A. Schwartz
ASST-EXMR: M. R. Mosher
LEGAL-REP: Townsend and Townsend

US PAT NO: 5,037,753 [IMAGE AVAILABLE] L4: 3 of 3

ABSTRACT:
Compositions derived from a novel viral isolate designated feline T-lymphototropic lentivirus (**FTLV**) include the whole virus; proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful in a variety of techniques for the detection of and **vaccination** against **FTLV**. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide probes to detect the viral genome. **Vaccines** include both wholly and partially inactivated viruses and subunit **vaccines**. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (HIV).

```
=> e yamamoto, janet/in
E1            1     YAMAMOTO, IWAWO/IN
E2            3     YAMAMOTO, IZURU/IN
E3            1 --> YAMAMOTO, JANET/IN
E4            3     YAMAMOTO, JANET K/IN
E5            6     YAMAMOTO, JIRO/IN
E6            1     YAMAMOTO, JOHN R/IN
E7            1     YAMAMOTO, JOSHIJI/IN
E8            2     YAMAMOTO, JUICHI/IN
E9           13     YAMAMOTO, JUN/IN
E10           2     YAMAMOTO, JUN ICHI/IN
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E11          1     YAMAMOTO, JUNICH/IN
E12         19     YAMAMOTO, JUNICHI/IN

=> s e3 or e4
             1 "YAMAMOTO, JANET"/IN
             3 "YAMAMOTO, JANET K"/IN
L6           4 "YAMAMOTO, JANET"/IN OR "YAMAMOTO, JANET K"/IN

=> d bib ab 1-4
```

US PAT NO: 5,275,813 [IMAGE AVAILABLE] L6: 1 of 4
DATE ISSUED: Jan. 4, 1994
TITLE: Methods and compositions for vaccinating against feline immunodeficiency virus
INVENTOR: **Janet K. Yamamoto**, Hercules, CA
Niels C. Pedersen, Winters, CA
ASSIGNEE: The Regents of the University of California, Oakland, CA (U.S. corp.)
APPL-NO: 07/739,014
DATE FILED: Jul. 31, 1991
ART-UNIT: 183
PRIM-EXMR: Christine M. Nucker
ASST-EXMR: D. Barnd
LEGAL-REP: Townsend and Townsend Khourie and Crew

US PAT NO: 5,275,813 [IMAGE AVAILABLE] L6: 1 of 4

ABSTRACT:
Compositions derived from a novel viral isolate designated feline immunodeficiency virus (FIV) include the whole virus, proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful in a variety of techniques for the detection of and vaccination against FIV. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide probes to detect the viral genome. Vaccines include both wholly and partially inactivated viruses inactivated cell lines expressing FIV antigens, and subunit vaccines. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (HIV).

US PAT NO: 5,118,602 [IMAGE AVAILABLE] L6: 2 of 4
DATE ISSUED: Jun. 2, 1992
TITLE: Feline T-lymphotropic lentivirus assay
INVENTOR: Niels C. Pedersen, Winters, CA
Janet K. Yamamoto, Davis, CA
ASSIGNEE: The Regents of the University of California, Oakland, CA (U.S. corp.)
APPL-NO: 07/614,474
DATE FILED: Nov. 16, 1990
ART-UNIT: 182
PRIM-EXMR: Esther L. Kepplinger
ASST-EXMR: Donna C. Wortman
LEGAL-REP: Townsend and Townsend

US PAT NO: 5,118,602 [IMAGE AVAILABLE] L6: 2 of 4

ABSTRACT:
Compositions derived from a novel viral isolate designated feline T-lymphotropic lentivirus (FTLV) include the whole virus; proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful in a variety of techniques for the detection of and vaccination against FTLV. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide probes to detect the viral genome. Vaccines include both wholly and partially inactivated viruses and subunit vaccines. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (HIV).

US PAT NO: 5,037,753 [IMAGE AVAILABLE] L6: 3 of 4
DATE ISSUED: Aug. 6, 1991
TITLE: Feline t-lymphotropic lentivirus
INVENTOR: Niels C. Pedersen, Winters, CA
Janet K. Yamamoto, Davis, CA

ASSIGNEE: The Regents of the University of California, Berkeley, CA (U.S. corp.)
APPL-NO: 07/618,030
DATE FILED: Nov. 16, 1990
ART-UNIT: 185
PRIM-EXMR: Richard A. Schwartz
ASST-EXMR: M. R. Mosher
LEGAL-REP: Townsend and Townsend

US PAT NO: 5,037,753 [IMAGE AVAILABLE] L6: 3 of 4

ABSTRACT:
Compositions derived from a novel viral isolate designated feline T-lymphototropic lentivirus (FTLV) include the whole virus; proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful in a variety of techniques for the detection of and vaccination against FTLV. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide probes to detect the viral genome. Vaccines include both wholly and partially inactivated viruses and subunit vaccines. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (HIV).

US PAT NO: 4,861,720 [IMAGE AVAILABLE] L6: 4 of 4
DATE ISSUED: Aug. 29, 1989
TITLE: Oncornavirus vaccines and feline alpha-type interferon
INVENTOR: Neils C. Pedersen, Winters, CA
Janet Yamamoto, Woodland, CA
ASSIGNEE: Regents of the University of California, CA (U.S. corp.)
APPL-NO: 06/882,088
DATE FILED: Jul. 3, 1986
ART-UNIT: 185
PRIM-EXMR: Blondel Hazel
LEGAL-REP: Bertram I. Rowland, W. Murray Spruill

US PAT NO: 4,861,720 [IMAGE AVAILABLE] L6: 4 of 4

ABSTRACT:
Retroviral vaccines are provided comprising incompetent retroviruses containing defective RNA produced by growing viral transformed cells in the presence of interferon. The resulting defective viruses by themselves or in combination with interferon can be used as vaccines for immunizing viral sensitive hosts against infection. A novel feline interferon is produced in culture with cells infected with the defective non-infectious retroviruses.

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=> s aids or hiv
         62957 AIDS
          2296 HIV
L7       63877 AIDS OR HIV

=> s l7 and (cat? or feline?)

TERM 'CAT?' EXCEEDED TRUNCATION LIMITS - SEARCH ENDED

=> s l7 and (cat or feline?)
         12163 CAT
           908 FELINE?
L8        1060 L7 AND (CAT OR FELINE?)

=> s l8 and vaccin?
          5299 VACCIN?
L9         183 L8 AND VACCIN?

=> s l9 and ftlv
             5 FTLV
L10          3 L9 AND FTLV

=> d cit 1-3
```

1. 5,275,813, Jan. 4, 1994, Methods and compositions for **vaccinating** against **feline** immunodeficiency virus; Janet K. Yamamoto, et al., 424/208.1, 819 [IMAGE AVAILABLE]

2. 5,118,602, Jun. 2, 1992, **Feline** T-lymphotropic lentivirus assay;

Niels C. Pedersen, et al., 435/5, 7.92; 436/518 [IMAGE AVAILABLE]

3. 5,037,753, Aug. 6, 1991, **Feline** t-lymphotropic lentivirus; Niels C. Pedersen, et al., 435/235.1; 424/208.1; 435/5, 948; 530/388.35 [IMAGE AVAILABLE]

=> s l9 and lentivirus
77 LENTIVIRUS
L11 13 L9 AND LENTIVIRUS

=> d 1-13 bib ab

US PAT NO: 5,420,026 [IMAGE AVAILABLE] L11: 1 of 13
DATE ISSUED: May 30, 1995
TITLE: Self-assembling replication defective hybrid virus particles
INVENTOR: Lendon Payne, Arlington, MA
ASSIGNEE: Therion Biologics Corporation, Cambridge, MA (U.S. corp.)
APPL-NO: 08/017,124
DATE FILED: Feb. 12, 1993
ART-UNIT: 184
PRIM-EXMR: Jacqueline Stone
ASST-EXMR: Johnny F. Railey, II
LEGAL-REP: Sewall P. Bronstein, Ronald I. Eisenstein, David S. Resnick

US PAT NO: 5,420,026 [IMAGE AVAILABLE] L11: 1 of 13

ABSTRACT:
The invention pertains to self-assembled replication defective hybrid virus-like particles having capsid and membrane glycoproteins from at least two different virus types and method of making same. Recombinant viral vectors as well as the viral particles can be used as immunogens and drug delivery vehicles.

US PAT NO: 5,413,927 [IMAGE AVAILABLE] L11: 2 of 13
DATE ISSUED: May 9, 1995
TITLE: **Feline** immunodeficiency virus isolate NCSU.sub.1Lb
INVENTOR: Wayne A. F. Tompkins, Apex, NC
Mary B. Tompkins, Apex, NC
ASSIGNEE: North Carolina State University, Raleigh, NC (U.S. corp.)
APPL-NO: 08/105,710
DATE FILED: Aug. 12, 1993
ART-UNIT: 184
PRIM-EXMR: Jacqueline Stone
ASST-EXMR: Johnny F. Railey, II
LEGAL-REP: Bell, Seltzer, Park & Gibson

US PAT NO: 5,413,927 [IMAGE AVAILABLE] L11: 2 of 13

ABSTRACT:
Disclosed is an isolated and purified **feline** immunodeficiency virus (FIV) culture having the identifying characteristics of FIV isolate NCSU.sub.1. A biologically pure culture of host cells containing a FIV having the identifying characteristics of FIV isolate NCSU.sub.1 is also disclosed, along with isolated and purified DNA coding for (a) an FIV having the identifying characteristics of FIV isolate NCSU.sub.1, or (b) an antigenic fragment of an FIV having the identifying characteristics of FIV isolate NCSU.sub.1. Various **vaccine** formulations containing active agents derived from the foregoing FIV virus, DNA encoding the virus, and DNA encoding antigenic fragments of the virus are also disclosed herein.
Also disclosed are immunodeficient mice containing **feline** tissue, which **feline** tissue is capable of infection with a **feline** immunodeficiency virus such as (but not limited to) FIV isolate NCSU.sub.1.

US PAT NO: 5,413,914 [IMAGE AVAILABLE] L11: 3 of 13
DATE ISSUED: May 9, 1995
TITLE: Yeast assay to identify inhibitors of dibasic amino acid processing endoproteases
INVENTOR: Alex Franzusoff, Boulder, CO
ASSIGNEE: The Regents of the University of Colorado, Boulder, CO (U.S. corp.)

APPL-NO: 08/088,322
DATE FILED: Jul. 7, 1993
ART-UNIT: 185
PRIM-EXMR: Michael G. Wityshyn
ASST-EXMR: Ralph Gitomer
LEGAL-REP: Sheridan Ross & McIntosh

US PAT NO: 5,413,914 [IMAGE AVAILABLE] L11: 3 of 13

ABSTRACT:
The present invention relates to a novel method to identify compounds that inhibit proteolytic cleavage by dibasic amino acid processing endoproteases that includes contacting a yeast strain with a putative inhibitory compound under conditions in which, in the absence of the compound, the yeast strain can cleave a precursor protein having a dibasic amino acid processing site and determining if the putative inhibitory compound inhibits cleavage of the precursor protein. The present invention includes a method to identify compounds capable of inhibiting infectious agents, such as viruses, that depend upon dibasic amino acid processing endoprotease cleavage for propagation. The present invention also includes assay kits based on such a method.

US PAT NO: 5,380,830 [IMAGE AVAILABLE] L11: 4 of 13
DATE ISSUED: Jan. 10, 1995
TITLE: Molecular clones of bovine immunodeficiency-like virus
INVENTOR: Matthew A. Gonda, Walkersville, MD
ASSIGNEE: The United States of America as represented by the Secretary of the Department of Health and Human Services , Washington, DC (U.S. govt.)
APPL-NO: 07/980,324
DATE FILED: Nov. 24, 1992
ART-UNIT: 184
PRIM-EXMR: Jacqueline Stone
ASST-EXMR: Johnny F. Railey, II
LEGAL-REP: Susan S. Rucker

US PAT NO: 5,380,830 [IMAGE AVAILABLE] L11: 4 of 13

ABSTRACT:
Biologically active proviral molecular clones of bovine immunodeficiency-like virus and cell lines infected with the same have been prepared. Various utilities of the clones are described.

US PAT NO: 5,275,813 [IMAGE AVAILABLE] L11: 5 of 13
DATE ISSUED: Jan. 4, 1994
TITLE: Methods and compositions for **vaccinating** against **feline** immunodeficiency virus
INVENTOR: Janet K. Yamamoto, Hercules, CA
Niels C. Pedersen, Winters, CA
ASSIGNEE: The Regents of the University of California, Oakland, CA (U.S. corp.)
APPL-NO: 07/739,014
DATE FILED: Jul. 31, 1991
ART-UNIT: 183
PRIM-EXMR: Christine M. Nucker
ASST-EXMR: D. Barnd
LEGAL-REP: Townsend and Townsend Khourie and Crew

US PAT NO: 5,275,813 [IMAGE AVAILABLE] L11: 5 of 13

ABSTRACT:
Compositions derived from a novel viral isolate designated **feline** immunodeficiency virus (FIV) include the whole virus, proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful in a variety of techniques for the detection of and **vaccination** against FIV. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide probes to detect the viral genome. **Vaccines** include both wholly and partially inactivated viruses inactivated cell lines expressing FIV antigens, and subunit **vaccines**. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (**HIV**).

US PAT NO: 5,256,767 [IMAGE AVAILABLE] L11: 6 of 13
DATE ISSUED: Oct. 26, 1993
TITLE: Retroviral antigens
INVENTOR: Jonas Salk, La Jolla, CA
Dennis J. Carlo, Rancho Santa Fe, CA
ASSIGNEE: The Immune Response Corporation, Carlsbad, CA (U.S. corp.)
APPL-NO: 07/975,899
DATE FILED: Nov. 10, 1992
ART-UNIT: 183
PRIM-EXMR: Christine M. Nucker
ASST-EXMR: L. F. Smith
LEGAL-REP: Campbell and Flores

US PAT NO: 5,256,767 [IMAGE AVAILABLE] L11: 6 of 13

ABSTRACT:
The present invention provides a non-infectious immunotherapeutic containing retroviral particles devoid of outer envelope proteins or containing selected antigens isolated from a retrovirus. There is also provided a **vaccine** effective against **HIV**. In one aspect, the immunogen is useful for immunizing an individual previously infected by a retrovirus including **HIV**, so as to induce immunoprotective factors protective against progression of the infection. In another aspect, the **vaccine** is useful for **vaccinating** an individual not previously infected with **HIV** in order to prevent subsequently acquired infection. In another aspect, there is provided a method of rendering a viral immunogen non-infectious. The immunogen may also be used to produce antibodies for passive immunotherapy, alone or in conjunction with active immunotherapy, in individuals infected with a retrovirus, including **HIV**, preferably those individuals exhibiting low levels of antibodies to retroviral gene products other than the outer envelope.

US PAT NO: 5,171,662 [IMAGE AVAILABLE] L11: 7 of 13
DATE ISSUED: Dec. 15, 1992
TITLE: Method of detecting **HIV** protease activity
INVENTOR: Satish K. Sharma, Portage, MI
ASSIGNEE: The Upjohn Company, Kalamazoo, MI (U.S. corp.)
APPL-NO: 07/680,679
DATE FILED: Apr. 4, 1991
ART-UNIT: 183
PRIM-EXMR: Christine M. Nucker
ASST-EXMR: Chris Dubrule
LEGAL-REP: Mark DeLuca

US PAT NO: 5,171,662 [IMAGE AVAILABLE] L11: 7 of 13

ABSTRACT:
A method for identifying compounds that inhibit **HIV** protease is disclosed. A substrate that comprises an **HIV** protease cleavage site is combined with **HIV** protease and test compounds. Cleavage of the substrate indicates protease activity and can be detected using antibodies against a cleavage product which do not cross react with uncleaved substrate. A method of detecting the presence of anti-**HIV** protease antibodies in a sample is also disclosed. A substrate is combined with the sample and **HIV** protease. Detection of substrate cleavage indicates that the protease is active and that there is an absence of neutralizing anti-**HIV** protease antibodies.

US PAT NO: 5,118,602 [IMAGE AVAILABLE] L11: 8 of 13
DATE ISSUED: Jun. 2, 1992
TITLE: **Feline** T-lymphotropic **lentivirus** assay
INVENTOR: Niels C. Pedersen, Winters, CA
Janet K. Yamamoto, Davis, CA
ASSIGNEE: The Regents of the University of California, Oakland, CA (U.S. corp.)
APPL-NO: 07/614,474
DATE FILED: Nov. 16, 1990
ART-UNIT: 182
PRIM-EXMR: Esther L. Kepplinger
ASST-EXMR: Donna C. Wortman
LEGAL-REP: Townsend and Townsend

US PAT NO: 5,118,602 [IMAGE AVAILABLE] L11: 8 of 13

ABSTRACT:

Compositions derived from a novel viral isolate designated **feline** T-lymphotropic **lentivirus** (FTLV) include the whole virus; proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful in a variety of techniques for the detection of and **vaccination** against FTLV. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide probes to detect the viral genome. **Vaccines** include both wholly and partially inactivated viruses and subunit **vaccines**. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (**HIV**).

US PAT NO: 5,112,756 [IMAGE AVAILABLE] L11: 9 of 13
DATE ISSUED: May 12, 1992
TITLE: Continuous production of bovine Maedi-Visna-like viral antigens in Cf2Th cells
INVENTOR: Alain M. P. Bouillant, Aylmer, Canada
Klaus Nielsen, Richmond, Canada
Gerda M. Ruckerbauer, Nepean, Canada
Bakhshish S. Samagh, Nepean, Canada
William C. D. Hare, North Gower, Canada
ASSIGNEE: Canadian Patents and Development Limited, Canada (foreign corp.)
APPL-NO: 07/057,213
DATE FILED: Jun. 1, 1987
ART-UNIT: 184
PRIM-EXMR: Elizabeth C. Weimar
ASST-EXMR: Gail Poulos
LEGAL-REP: Kenyon & Kenyon

US PAT NO: 5,112,756 [IMAGE AVAILABLE] L11: 9 of 13

ABSTRACT:
Permanent infection of a cell line such as a canine thymus cell line with a retrovirus such as equine infectious anemia virus and bovine Maedi-Visna-like virus is now possible. By culturing such an infected cell line under appropriate conditions, it is now possible to produce large quantities of viral antigens on a continuous basis. Such antigens are useful in for diagnostics and research.

US PAT NO: 5,106,616 [IMAGE AVAILABLE] L11: 10 of 13
DATE ISSUED: Apr. 21, 1992
TITLE: Administration of acemannan
INVENTOR: Bill H. McAnalley, Grand Prairie, TX
Robert H. Carpenter, Bastrop, TX
Harley R. McDaniel, Dallas, TX
ASSIGNEE: Carrington Laboratories, Inc., Irving, TX (U.S. corp.)
APPL-NO: 07/229,164
DATE FILED: Aug. 5, 1988
ART-UNIT: 183
PRIM-EXMR: John W. Rollins
LEGAL-REP: Johnson & Gibbs

US PAT NO: 5,106,616 [IMAGE AVAILABLE] L11: 10 of 13

ABSTRACT:
Acemannan has now been discovered to be a potent inducer of Interleukin 1 (Il-1) and prostaglandin E.sub.2 (PGE.sub.2) production by human peripheral blood adherent cells in culture. Il-1 has been shown to be an important macrophage product and is associated with influencing the activity and production of T lymphocytes, fibroblasts, B lymphocytes and endothelial cells. Acemannan has no demonstrated toxicity, and acts as an adjuvant and immunoenhancer. Administration of an amount of acemannan sufficient to stimulate monocytes and macrophages not only produces Il-1 and PGE.sub.2 but also stimulates phagocytosis, increases antibody production, enhances antiviral activity in the serum and, in those patients with **AIDS**/ARC, produces defective **HIV** virus. Acemannan has been shown to affect the rate of virus production in viral **vaccine** master seed cultures by accelerating the rate of viral replication. In addition, acemannan is a potent adjuvant to viral **vaccines** in chickens. Acemannan has also shown specific antitumor activity against sarcoid tumors in horses.

US PAT NO: 5,037,753 [IMAGE AVAILABLE] L11: 11 of 13

DATE ISSUED: Aug. 6, 1991
TITLE: **Feline** t-lymphotropic **lentivirus**
INVENTOR: Niels C. Pedersen, Winters, CA
Janet K. Yamamoto, Davis, CA
ASSIGNEE: The Regents of the University of California, Berkeley, CA (U.S. corp.)
APPL-NO: 07/618,030
DATE FILED: Nov. 16, 1990
ART-UNIT: 185
PRIM-EXMR: Richard A. Schwartz
ASST-EXMR: M. R. Mosher
LEGAL-REP: Townsend and Townsend

US PAT NO: 5,037,753 [IMAGE AVAILABLE] L11: 11 of 13

ABSTRACT:
Compositions derived from a novel viral isolate designated **feline** T-lymphototropic **lentivirus** (FTLV) include the whole virus; proteins, polypeptides and, polynucleotide sequences derived from the virus; and antibodies to antigenic sites on the virus. These compositions are useful in a variety of techniques for the detection of and **vaccination** against FTLV. Detection methods disclosed include immunoassays for both the virus and antibodies to the virus, and the use of polynucleotide probes to detect the viral genome. **Vaccines** include both wholly and partially inactivated viruses and subunit **vaccines**. Whole, live virus is also useful as a model system for predicting the behavior of human immunodeficiency virus (**HIV**).

US PAT NO: 4,918,166 [IMAGE AVAILABLE] L11: 12 of 13
DATE ISSUED: Apr. 17, 1990
TITLE: Particulate hybrid **HIV** antigens
INVENTOR: Alan J. Kingsman, Islip, United Kingdom
Susan M. Kingsman, Islip, United Kingdom
Sally E. Adams, Kidlington, United Kingdom
ASSIGNEE: Oxford Gene Systems Limited, Oxford, England (foreign corp.)
APPL-NO: 07/112,083
DATE FILED: Oct. 26, 1987
ART-UNIT: 181
PRIM-EXMR: Christine M. Nucker
LEGAL-REP: Allegretti & Witcoff, Ltd.

US PAT NO: 4,918,166 [IMAGE AVAILABLE] L11: 12 of 13

ABSTRACT:
Fusion proteins comprise a77 first amino acid sequence and a second amino acid sequence. The first amino acid sequence is derived from a retrotransposon or an RNA retrovirus and confers on the fusion protein the ability to assemble into particles; an example is the product of the YTA gene of the yeast retrotransposon Ty. The second amino acid sequence is an **HIV** antigen. So particles formed of the fusion proteins may be useful in **vaccines** or in diagnostic or purification applications.

US PAT NO: 4,806,467 [IMAGE AVAILABLE] L11: 13 of 13
DATE ISSUED: Feb. 21, 1989
TITLE: Method for the detection of equine infectious anemia and other retrovirus infections using a competitive enzyme-linked immunoabsorbent assay and reagents useful in the same
INVENTOR: James P. Porter, Oakland, CA
Tatsuo Matsushita, Fort Collins, CO
Lyndal K. Hesterberg, Fort Collins, CO
ASSIGNEE: Fermenta Animal Health Company, Kansas City, MO (U.S. corp.)
APPL-NO: 06/789,910
DATE FILED: Oct. 21, 1985
ART-UNIT: 182
PRIM-EXMR: Sam Rosen
LEGAL-REP: Sughrue, Mion, Zinn, Macpeak, and Seas

US PAT NO: 4,806,467 [IMAGE AVAILABLE] L11: 13 of 13

ABSTRACT:
The present invention relates to a method of detecting either antibody or antigen in the serum of horses infected with equine infectious anemia

using a competitive enzyme-linked immunoabsorbent assay technique and reagents useful in such an assay. The competitive enzyme-linked immunoabsorbent assay incorporates a purified virus antigen conjugate and a monoclonal antibody specific for the virus antigen as both the reacting and competing components. Alternatively, the competitive enzyme-linked immunoabsorbent assay incorporates a purified virus antigen and a monoclonal antibody conjugate specific for the viral antigen as both reacting and competing components. This invention also relates to detecting antigen and antibody found in other retrovirus infections such as Acquired Immunodeficiency Syndrome in humans.

=> d l9 cit 1-183

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